PIBS 4562e

MANAGEMENT OF EXCESS MATERIALS IN ROAD CONSTRUCTION AND MAINTENANCE

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Ministry of Environment & Energy

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MANAGEMENT CONDITIONS

General

The Ministry of Transportation and the Ministry of Environment and Energy are committed to the 3Rs hierarchy of waste management: Reduce, Reuse and Recycle. During road construction and maintenance activities, every effort should be made to avoid the unnecessary generation of waste. Any excess material which is generated should be reused/recycled in engineered construction or maintenance applications. Where excess material must be managed as fill, opportunities for its placement within the road right-of-way should be fully explored first before being placed, in an environmentally responsible way, within the remaining part of the construction area. Disposal in an approved landfill site outside the project limits should only be considered where these other management alternatives prove to be insufficient.

The management conditions contained in this document are designed to enable environmentally acceptable reuse and recycling of excess bituminous pavement, portland cement concrete, swamp material, natural wood/vegetation/grubbing materials, roadsweepings and catchbasin cleanout material in road construction and maintenance.

Any excess material which is to be used in road construction or maintenance shall not have any obvious evidence of contamination beyond that which would be normally expected.

In addition to the conditions detailed in this agreement, the requirements of other government agencies, such as the Ministry of Natural Resources may have to be met.

Placement of any excess material on private property also requires the permission of the property owner(s).

1. Bituminous Pavement and Portland Cement Concrete

Excess portland cement concrete and/or bituminous pavement, and/or materials containing them, may be managed as follows:

(a) where engineering requirements can be met, in road and highway shoulders, driving surface (paved and unpaved), binder courses, berms, granular base and subbase, below subgrade and in other engineered applications within the right-of-way without constraints;

(b) stockpiled for reuse/recycling in road or highway construction in accordance with the following constraints:

(i) located a minimum of 30m from waterbodies unless engineered control works are in place;

(ii) located a minimum of 100m from individual residential structures, unless the stockpile is located within the construction area for a period not exceeding 120 days or is located in a commercially licensed pit or quarry, or on a provincially or municipally owned road works yard; and

(iii) necessary steps are taken to minimize dust emissions.

(c) as an aggregate replacement in other construction projects where it meets engineering requirements. These projects include parking lots, sidewalks, bike paths, driveways, and pipelines. Other similar uses may be permitted if endorsed by the MOEE, Program Development Branch.

(d) excess portland cement concrete and/or materials containing portland cement concrete may also be used for rip rap, rock protection and gabion stone provided:

(i) they are of sound structural quality without exposed or protruding reinforcing steel; and

(ii) they are graded in sizes from 75mm to 525mm (OPSS 1004 requirements fall within this range).

(e) any other reuse or recycling option, as endorsed by MOEE;

(f) excess material which can only be managed by disposal in an approved landfill would normally be classified as solid non-hazardous industrial or commercial waste.

2. Swamp Material

Excess swamp material may be managed as follows:

(a) where engineering requirements can be met, within road and highway rights-of-way without constraint, provided due consideration is given to the environmental setting and minimizing environmental impacts;

(b) outside road and highway rights-of-way as fill material provided:

(i) it is placed a minimum of 30m away from waterbodies;

(ii) it is placed a minimum of 100m away from water wells;

(iii) it is placed a minimum of 2m above the nominal groundwater level; and

(iv) it is placed a minimum of 100m away from residential structures.

(c) outside road and highway rights-of-way within a wetland area provided site specific approval has been obtained from the Ministry of Natural Resources;

(d) any other reuse or recycling option, as endorsed by MOEE;

(e) excess material which can only be managed by disposal in an approved landfill would normally be classified as solid non-hazardous industrial or commercial waste.

3. Natural Wood/Vegetation/Grubbing Materials

Provided all reasonable efforts have been made to minimize the generation of excess material, and maximize reuse/recycling opportunities, natural wood/vegetation/grubbing materials may be managed:

(a) where engineering requirements can be met, within road and highway rights-of-way without constraints, provided due consideration is given to the environmental setting and minimizing environmental impacts;

(b) outside road and highway rights-of-way but within the construction area as push out or fill material, provided:

(i) they are placed 30m away from waterbodies;

(ii) they are placed a minimum of 100m away from water wells;

(iii) they are placed a minimum of 2m above the nominal groundwater level;

(iv) they are placed 100m away from residential structures; and

(v) they are top covered by a minimum of 300mm of earth or topsoil.

(c) any other reuse or recycling option, as endorsed by MOEE;

(d) excess material which can only be managed by disposal in an approved landfill would normally be classified as solid non-hazardous industrial or commercial waste.

4. Roadsweeping Material

Roadsweeping materials may be managed as follows:

(a) where engineering requirements can be met, within road and highway rights-of-way for engineered applications, by sweeping directly to the shoulder, or by blending with virgin sand and subsequently using the blended material for winter sanding operations, without constraints, or by stockpiling on provincially or municipally owned property for future reuse in road and highway rights-of-way, provided the material is managed so as to control dust and, prevent entry to waterbodies and other identified environmentally sensitive areas;

(b) reuse in a construction material or any other reuse or recycling option, as endorsed by MOEE;

(c) excess material which can only be managed by disposal in an approved landfill would normally be classified as solid non-hazardous industrial or commercial waste.

5. Catchbasin Cleanout Material

Catchbasin cleanout material may be managed as follows:

(a) where engineering requirements can be met, within road and highway rights-of-way by blending dewatered catchbasin cleanout material with virgin sand and subsequently using the blended material for winter sanding operations, or by stockpiling dewatered material on provincially or municipally owned property for future reuse as, winter sand, in road and highway rights-of-way provided project and site specific approval has been obtained from the Ministry of the Environment and Energy;

(b) any other reuse or recycling option, as endorsed by MOEE;

(c) excess material which can only be managed by disposal in an approved landfill would normally be classified as solid non-hazardous industrial or commercial waste.

DEFINITIONS

Base: means a layer of material of specified type and thickness placed immediately below the driving surface and any curb and gutter (see attached diagram).

Berm: an embankment constructed for purposes of stability, noise attenuation, or aesthetics.

Bituminous Pavement: means any combination of asphaltic material and aggregate, excluding asbestos modified asphaltic material.

Catchbasin Cleanout Material: means sand/gravel/vehicle grit/stormwater mixture resulting from highway operation and winter maintenance operations.

Construction Area: means the road allowance, right-of-way, and property with a boundary common to the road allowance or right-of-way within the contract limits.

Embankment: means approved fill material used to bring the grade up to the bottom of the subbase, within fixed side slopes (see attached diagram).

Engineered Application: any construction or maintenance activity which serves a purpose, excluding waste or excess material management.

Groundwater: means subsurface water, water that occurs beneath the water table in soils and geologic formations that are fully saturated.

Natural wood/Vegetation/Grubbing Materials: means excess wood, stumps, root balls and root masses, and may include embedded soil and rock materials.

Nominal Groundwater Level: means the level of groundwater that is determined for normal design procedures.

Pipeline: includes, but is not limited to, storm and sanitary sewers, culverts and watermains.

Portland Cement Concrete: means concrete produced with portland cement, and includes concrete mixtures with portland cement, blended hydraulic cement and supplementary cement materials, and excludes asbestos modified portland cement concrete mixtures.

Right-of-Way: means the entire strip of land used for highway or road purposes.

Roadbed: means that portion of the work which is designed to support the travelled surface and shoulders of the road.

Roadsweeping Material: means sand/gravel/vehicle grit mixture resulting from winter maintenance operations, but does not include litter and abandoned material components.

Subbase: means a layer of material of specified type and thickness placed between the subgrade and the base (see attached diagram).

Subgrade: means a surface prepared for base or subbase (see attached diagram).

Swamp Material: means muskeg and/or organic soils.

Waterbody: means any body of water or watercourse or wetland, or portion thereof, excluding ditches which are not portions of natural watercourses.

For more information:

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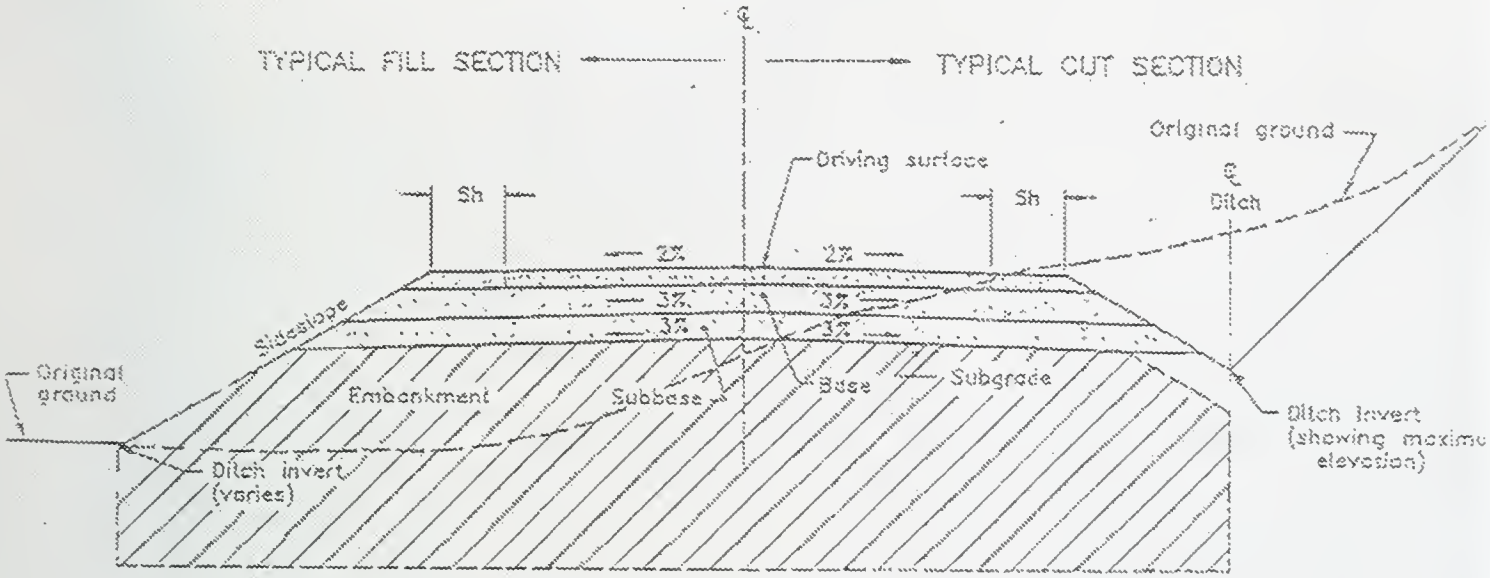
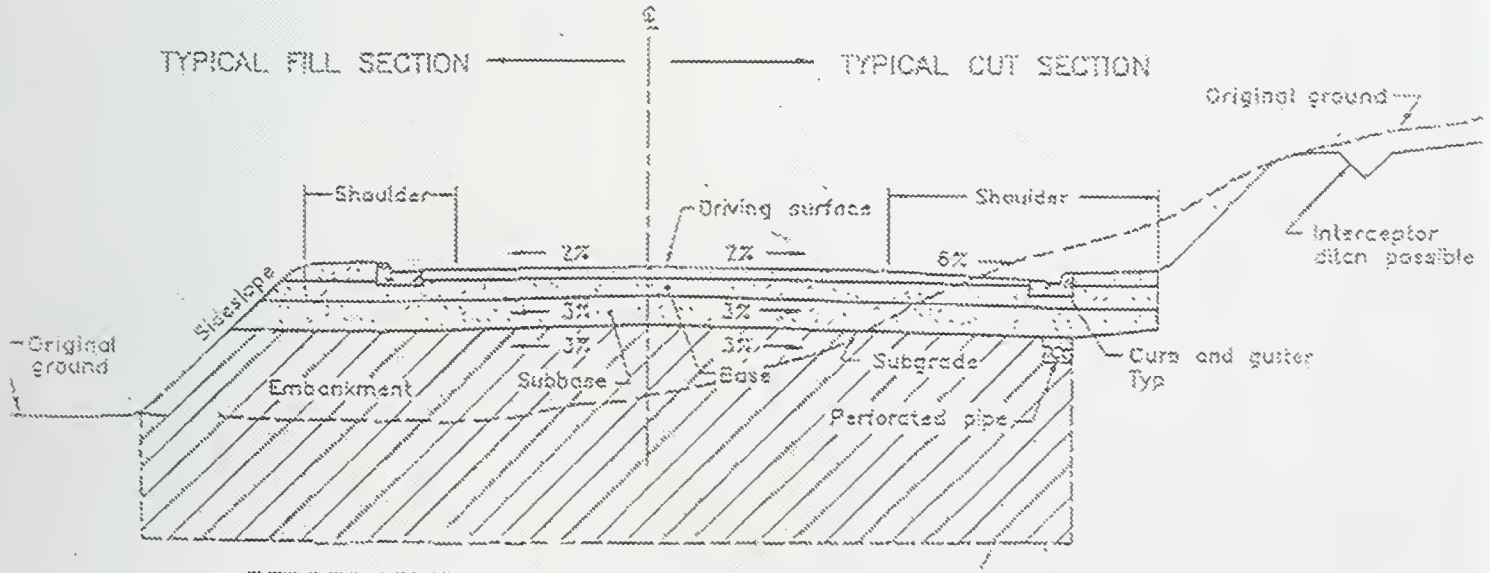


REPRESENTATION OF CROSS SECTION WITH DITCHES SHOWING FILL AND CUT SECTION



REPRESENTATION OF CROSS SECTION WITH CURB AND GUTTER SHOWING FILL AND CUT SECTION